

APPLICATION NO.: 10/691,705  
Attorney Docket No.: ST3001-0031  
Response and Amendment

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## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims**

Claim 1 (currently amended): An optical semiconductor device, comprising:

an optical semiconductor chip sealed in a surrounding soft resin;  
a holder formed around said soft resin and ~~[integrally with]~~ adjacent a lead frame; and  
a covering lens composed of a transparent resin, harder than said soft resin, wherein said holder has an aperture configured to form at least one of a space adjacent the soft resin into which the soft resin expands during operation of the semiconductor device and an opening exposed to atmosphere adjacent the soft resin from which the soft resin expands during operation of the semiconductor device, the aperture~~[relieve a state of hermetic sealing for said soft resin and]~~ formed in a direction that imposes substantially no optical influence on a function of said optical semiconductor chip.

Claim 2 (previously presented): The optical semiconductor device according to claim 1, wherein said lead frame protrudes into said aperture of said holder so as to occupy an inner rim of said aperture at a ratio below  $\frac{1}{2}$  in length.

Claim 3 (previously presented): The optical semiconductor device according to claim 1, wherein the holder is made from a hard resin that is harder than the soft resin.

Claim 4 (previously presented): The optical semiconductor device according to claim 1, wherein

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the aperture extends below the optical semiconductor chip.

Claim 5 (currently amended): The optical semiconductor device according to claim 4, wherein the aperture defines [a] the space into which the soft resin can expand into during operation of the optical semiconductor device.

Claim 6 (currently amended): The optical semiconductor device according to claim 1, wherein the aperture defines [a] the space into which the soft resin can expand into during operation of the optical semiconductor device.

Claim 7 (currently amended): The optical semiconductor device according to claim 1, wherein the holder has a bottom surface and the soft resin has a bottom surface, and a portion of the soft resin bottom surface is spaced from the holder bottom surface along an axis of the aperture such that [a] one of the space and the opening is defined in the aperture of the holder.

Claim 8 (previously presented): The optical semiconductor device according to claim 7, wherein the optical semiconductor chip is a light emitting device.

Claim 9 (currently amended): The optical semiconductor device according to claim 1, wherein the lens is located above the optical semiconductor chip, and the aperture and soft resin are configured such that [a] one of the space and the opening is located below the optical semiconductor chip.

Claim 10 (previously presented): An optical semiconductor device, comprising:

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an optical semiconductor chip;  
a soft resin located adjacent the optical semiconductor chip;  
a holder located adjacent the soft resin, wherein the soft resin and the holder form a space located below the optical semiconductor chip, and the space is configured such that the soft resin can expand into the space during operation of the optical semiconductor device;  
a lead frame connected to the semiconductor chip; and  
a covering lens that is harder than the soft resin and located above the optical semiconductor chip.

Claim 11 (previously presented): The optical semiconductor device according to claim 10, wherein the holder is formed with an aperture that has an inner periphery, and the lead frame protrudes into the aperture of the holder along less than one half of the inner periphery of the aperture.

Claim 12 (previously presented): The optical semiconductor device according to claim 10, wherein the holder includes an aperture that extends below the optical semiconductor chip.

Claim 13 (previously presented): The optical semiconductor device according to claim 12, wherein the optical semiconductor chip is a light emitting device.

Claim 14 (previously presented): The optical semiconductor device according to claim 10, wherein the holder has a bottom surface and the soft resin has a bottom surface, and a portion of the soft resin bottom surface is spaced from the holder bottom surface to form the space.

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Claim 15 (previously presented): The optical semiconductor device according to claim 10, wherein the holder includes an aperture that is configured to relieve a state of hermetic sealing for the soft resin and is formed in a direction that imposes no optical influence on a function of the optical semiconductor chip.

Claim 16 (previously presented): The optical semiconductor device according to claim 10, wherein the covering lens is immediately adjacent and in contact with the soft resin.

Claim 17 (canceled)

Claim 18 (canceled)

Claim 19 (canceled)

Claim 20 (canceled)

Claim 21 (new): An optical semiconductor device, comprising:  
an optical semiconductor chip;  
a soft resin located adjacent the optical semiconductor chip;  
a holder located adjacent the soft resin, wherein the holder forms a space located adjacent the soft resin, and the space is configured such that the soft resin can expand into the space during operation of the optical semiconductor device;  
a lead frame connected to the semiconductor chip; and  
a covering lens that is harder than the soft resin and located above the optical semiconductor chip.

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Claim 22 (new): The optical semiconductor device according to claim 21, wherein the holder is formed with an aperture, and the lead frame extends into the aperture, and the soft resin is located above and below the lead frame.

Claim 23 (new): The optical semiconductor device according to claim 21, wherein the holder includes an aperture that extends below the optical semiconductor chip, and the space is located below the optical semiconductor chip and opens to atmosphere into which the soft resin can expand during operation of the optical semiconductor device.